Community Water Management

Strengthening community water management

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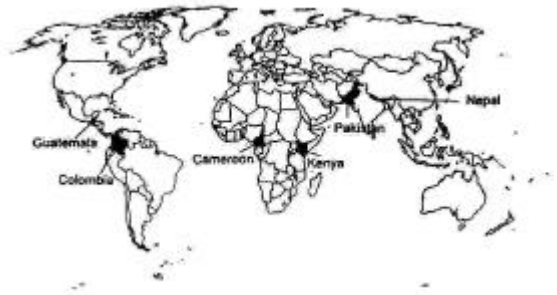
· Introduction

This *PLA Notes* has a special focus on community water management. It has largely been drawn together by an international team from IRC, International Water and Sanitation Centre[1], in collaboration with teams from six organisations world-wide[2]. It aims to share the lessons learned from a challenging participatory action research programme to improve rural communities' management of their water supply systems. This programme, known as the PAR-Manage project, has been running for the past five years in six countries from the South: Cameroon, Colombia, Guatemala, Kenya, Nepal and Pakistan (see Figure 1).

Figure 1. Countries of PAR research



[1] IRC in the 1970s used to stand for 'International Reference Centre'. Now the acronym means 'International Resource Centre', to better reflect the current support package of advisory services, advocacy, briefing and training, documentation services, publishing and research.

[2] CINARA from Colombia, NETWAS from Kenya, NEWAH from Nepal, PAID in Cameroon, SER in Guatemala, and WASEP from Pakistan.

IRC and its partners, supported by the Netherlands Directorate General for International Co-operation (DGIS), have developed a flexible approach to community-managed water supply systems that can be used by various support organisations, and can easily be adapted to local circumstances. This participatory approach, known as Participatory Action Development (PAD), draws on the best practices, principles, tools and techniques developed by practitioners of Participatory Action Research, Participatory Technology Development and Participatory Rural Appraisal.

The PAR-Manage project started in 1994 (see Figure 2). The programme dealt with community management and developed approaches, methods and tools to enhance the capacity of rural communities to manage their own water supply systems with appropriate backup support and guidance. The research projects have been executed by organisations dealing with support and capacity building for community-managed rural water supply systems at the country or regional level. The IRC, which deals with issues around community-managed water supplies at the international level, provided the overall co-ordination, training and support for the research teams.

Between 1994 and 1998 the approach was tested in 22 communities in the six countries, each with a wide variety of water supply systems and service levels, and representing a range of environmental, socio-economic and cultural conditions, as well as variations in managerial performance. Based on the programme's experiences, valuable lessons have been learnt about improved strategies,

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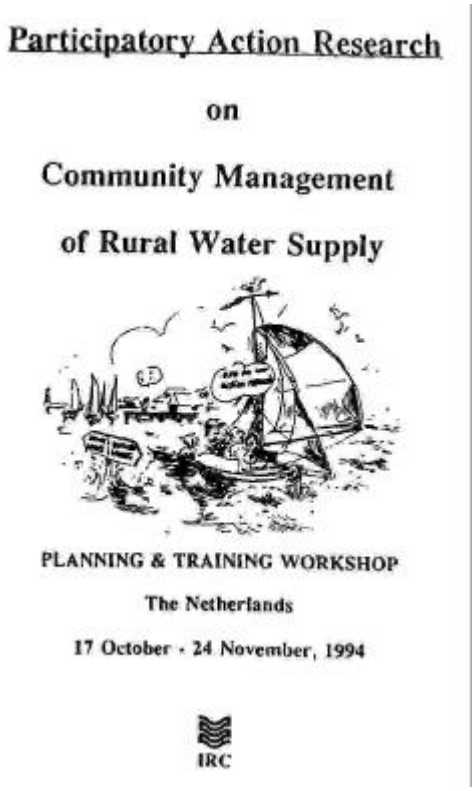
innovative methods and tools for building management capacity within communities.

Figure 2. The planning and training workshop that started the programme in 1994



Many of the teams involved have identified the need for capacity development in their respective organisations, and for strategies and tools that could help them to implement a participatory methodology for improving water supply system management that is flexible enough to adjust to different local circumstances. The programme is now at the stage of disseminating its experiences by means of publications, more active sharing and capacity building.

We have divided the theme section of this special issue of *PLA Notes* into two parts. The first contains two articles following on from this overview whilst the second part of the theme section presents some highlights from experiences at community level in the six countries where the PAR-Manage was implemented.

In this overview, we explore what community management of water means, outline the research process and principles and present the results and lessons learned from the PAR-Manage project. In the next two articles members of the IRC project team describe the methodology and its phases in more depth (Lammerink et al, and Lammerink, this issue).

In the second part of the special issue are the experiences of the local research teams at the community level, who have made enormous contributions to the adoption of this approach to community water supply management. Each of the articles has a different focus, but all are based on the same PAD approach. Also included in this second part is a separate article giving a detailed account of a participatory evaluation of a WaterAid community water management project in Tanzania (see Forrester *et al.*).

· What community water management is, and what it is not

Community water management is a new form of co-operation between support agencies in the water sector and communities. It involves a common search to identify problems with the local water supply system, and the possibilities for, and constraints on, management by communities, as well as possible solutions that may be tested. Some fundamental principles of community water management are that:

- communities own the process of change;
- facilitators and local researchers participate in the community's projects, not the other way around;
- increased management capacities are the basis for improved water systems; and that
- each community develops its own specific management systems.

Through this approach, the support agency is no longer the provider of technical goods or solutions, but the facilitator of processes to enhance the capacity of the community to manage its own water system. Communities are no longer the passive receivers of technical goods, but are active participants, knowledgeable and accountable for their actions. At the core of this co-operation are partnerships and ownership based in the community. Community management stimulates thinking and debate about

Source: PLA Notes (1999), Issue 35, pp.21–28, IIED London

relationships between support agencies and communities, about the capacities of communities to manage their own systems, about the attitudes of field staff working with communities, and about sustainable water management.

The objective is to get the process of strengthening management capacity moving, creating opportunities for communities to debate and reflect on their abilities to manage their own systems. Where this will end is often unknown and difficult to engineer, because these processes are the responsibility of the community. They will have to walk away with it, at some point, one way or another. The facilitation task is to initiate the process, using a variety of participatory tools and information. An example of this facilitating role during experimenting is shown in the community of Lele, Nepal (Khadka et al, this issue).

However, community management is not a 'magic wand' for solving problems in the water sector, or for governments who are keen to decentralise or privatise water provision. Neither is it a recipe that can be replicated wholesale as a blueprint.

The articles in this special issue demonstrate that although the approach and theory is similar for all project participants, the stories of how the process evolved in practice are diverse. In every community, the process has been very different, in terms of both the pace and the content. Although in each case the communities are now better able to manage their water supply systems, the institutions, rules and structures that have underpinned this enhanced capacity are also diverse. This diversity again demonstrates that the communities have designed their own management systems, rather than follow a blueprint provided by support agencies. Community management celebrates heterogeneity, and that is what the authors of these articles want to convey.

Selling the community approach

A common early difficulty encountered by many of the teams was the 'dependency culture' instilled in many rural communities. After decades of paternalistic relations between the state and rural communities, it is difficult to sell the idea that communities need to take more responsibility. For decades, communities have been used to state agencies playing the role of providers: the state delivers the goods, for whatever reason, and the community receives and carries out the tasks the state prescribes.

In these circumstances, it is hardly surprising that communities do not accept the idea of community management with open arms. All the PAR project teams have therefore needed a lot of creativity and understanding, both at the start, and throughout the process, to get communities and local service organisations to buy into the process. Gonón Ortiz et al (this issue) experienced this in Guatemala, so did their colleagues in Pakistan in the community of Pakora (Ahmad and Raza, this issue).

There is always the danger that advocating increased community accountability and responsibility will be seen as a way for governments to cut spending and to wash their hands of community contact. However, there is a need for continued support from government - without this, the approach will simply not be sustained.

Understanding the social context: a vital ingredient for success

Communities are complex social realities; for this reason it is impossible to separate out the management of the water supply from other concerns. Management capacities can only be built successfully when there is a clear understanding of the social, economic and cultural characteristics of the community.

There have been great differences in project performance among the participating countries, as well as among the communities in any one country. Some communities have developed extensive and comprehensive management institutions and regulations for their water supply systems, as in Colombia, (Gomez and Rojas this issue), while others are still struggling with the concept of management, such as in Nyakerato in Kisii, Kenya (Oenga and Ikumi, this issue). These differences are due to many different factors, many of them rooted in the socio-economic structures of a community.

Source: PLA Notes (1999), Issue 35, pp.21–28, IIED London

Also leadership is an important factor. It seems to be a common feature that 'old' leaders play an important role in facilitating change in communities. If the leadership of a community is committed and receptive to change, the process is likely to proceed smoothly (see the second Tayong and Poubom article, this issue), but if the local leaders are too dominant and want to pull all the strings of community life, they can also be counterproductive. Therefore leadership issues have to be approached with care and with understanding. The challenge is to open up 'charismatic' leaders to new functions and attitudes, without destroying the respect they have in the community, or transforming them into bureaucrats. Sometimes a community has various interest groups struggling over resources, so that a lot of work has to be devoted to resolving conflicts and starting negotiations, as in Nyakerato, Kenya (Oenga and Ikumi, this issue). Culture, religion, gender or economic interests can divide communities, hampering efforts to encourage them to manage their water supply systems.

National water policies can also hinder community development. Sometimes a supply system has been so poorly designed that it has caused inequalities in water distribution. In such cases, community management may not be feasible because the different groups can not find a common denominator upon which to base solutions. All members of the community must then be involved in redesigning the water supply system, and begin community management at the earliest phase in the project.

For the facilitators of community management processes, it is therefore not enough just to open a box of participatory tools. They first need to understand the community's social and economic relations, leadership, cultural or religious aspects, and the different interests, and be able to use methods and tools in flexible ways. They are also likely to need mediation and negotiation skills in order to create opportunities for community management. The sustainability of water supply systems also depends *a priori* on the sustainability of community management systems or institutions. These complex social realities may sound insurmountable, but many local agency staff are aware of them and will be able to deal with them. Until now these capacities have not been recognised by technically focused agencies and policies. However, villagers clearly start to understand the importance as was acknowledged in Yampapnant, Nepal (Khadka and Paudyal, this issue).

Moving beyond a technical focus

It is understandable that communities often focus on technical improvements. Water systems have been designed and constructed according to strictly technical parameters. For many engineers, water is a technical matter. Both agencies and communities usually do not even consider the management aspects of water systems at the community level (see Figure 3). It is still believed that if technical problems are solved, the system will work. It may indeed work, but it will only be sustained if the procedures and institutions to manage the improved systems in the communities are strengthened or created at the same time.

Experiences in many projects have shown, however, that when the time comes to look into solutions, technical issues cannot be ignored on the basis of the argument that they have nothing to do with managerial aspects. Sometimes, systems have been so badly designed and constructed that at least small improvements have to be made before management aspects can even begin to be addressed. This was for instance needed in Pakora, Pakistan (Ahmad and Raza, this issue). However, technical options should be seen as part of a management solution, not as goals in themselves. Technical improvements can of course also support management solutions. In the case of water, meters and regulators, for example, are important monitoring instruments that can provide information that can be used to support the management of the system. The participatory action research learning by IRC and its six partners has shown how effective such instruments can be (see first article by Tayong and Poubom, this issue).

Source: PLA Notes (1999), Issue 35, pp.21–28, IIED London

Figure 3. PAR team and community research team discussing water shortages at the public water standpost in Yanthooko, Kenya. (Photo: M. Lammerink)

Strengthening community water management systems

It is important to remember that efforts to enhance community management are not starting from scratch. Many communities have managed their own water supplies for a long time, however well or badly, so that traditional knowledge of water management and water quality usually exists. They often already have water committees or caretakers, and have helped with the construction of their system. Neither are communities inexperienced as managers generally: they manage their own households, agricultural systems, religious or cultural events, as well as their relations with the state. Institutions often exist for deliberation and negotiation, as do leadership structures. These various processes of management are already ongoing when a project team arrives, and should be fully utilised in any effort to promote the local management of water supply systems. To fail to do so would be tantamount to showing complete disrespect for the community.

To facilitate processes that will enhance the management capacity of a community takes time and care, both during and beyond the lifetime of a project. This has been true for this programme, so arrangements have been made with the partner organisations to monitor what happens in the communities after the projects end. To take such time and care is obviously expensive, but will pay-off in the long-term as the water supply systems will become more sustainable and communities will become self-sufficient in operating and maintaining them. For the agencies involved, focusing on management rather than technical aspects requires a different way of accounting.

Community management cannot be addressed in isolation from the institutional context. Other agencies in other sectors are working in communities, and they also may be seeking to improve participation and local management. Such initiatives should be integrated. Within this programme, attention has been paid to these institutional aspects in all the six countries participating in the PAR process. Exchanging experiences with other agencies is important, as well as discussing community management, in order to stimulate debate on the capacities of communities to manage their systems, and to energise institutions and their staff.

· Using the process to stimulate democratic governance

Community management is not merely a concept to increase the effectiveness of water supply systems; it is also firmly based on a belief in participation and democracy. A support agency will find it problematic to promote or facilitate community management if its own internal procedures are undemocratic, in that they do not allow staff participation or do not provide opportunities to learn. In a democratic society, community management will probably have a better chance of succeeding because it will be embedded in the styles and rules of democratic governance. Knowing how institutional or political contexts can hinder or stimulate community management is important, as well as involving institutions, politicians and policy

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makers in the debate on community management. By disseminating the experiences of this participatory action research programme, IRC aims to strengthen or create new platforms for debate on community management by providing practical inputs on the operationalisation of community management (see Box 1).

Some impacts

What have been the direct results of this process for the 22 communities involved? These include:

- increased capacities of communities to manage their water supply system;
- minor technical improvements to water supply systems, (see Box 2);
- improved community management of water systems;
- the development of mechanisms for negotiation and decision making, including rules and regulations and payment systems;
- more women involved in decision making;
- communities' adoption of PAR to solve other development problems;
- communities starting to define their own projects and search for funding; and,
- communities supporting neighbouring communities to improve their management of the water supply system.

· Reflections from an international exchange workshop: changes resulting from the participatory community diagnosis

Grazia Borrini from the InternationalAdvisory Group asked the PAR teams whether the diagnosing phase had produced results, beyond information, in terms of raised awareness, increased internal communication, and organisation for action. The teams from all countries reported interesting achievements in all three areas.

In a very traditional community in Gilgit, Pakistan, men now allowed women to attend their meetings, and had started to look for other ways to include the women of the community. In Nepal, the PAR process had improved communications between two households that had not been on speaking terms for years. One member from each household had joined the community research team.

BOX 1
DISSEMINATING LESSONS IN CAMEROON

A sub-director at the central level of the Community Development Department (CDD) was so impressed with the results of the process that he requested training for all CDD field staff (70 managers and 180 assistants) in the approach, which was approved by the Ministry of Agriculture. In his official letter he wrote: *'Since the mission of the Department has been, and continues to be, to encourage community participation in all development endeavours, including thousands of water supply and sanitation projects that have management problems, the need to retrain our personnel in the PAR approach is of paramount importance to boosting our programme's effectiveness and ensuring community project sustainability'*.

The University of Dschang invited the team to participate in a curriculum development workshop for a Masters course in water resources management. At the national level, TV and radio (Radio Bamenda, national news and TV station) have already covered the approach. A national newspaper (*La voix du paysan*) published an article on the approach and there was a meeting of National Reference Group Bamenda. At the institutional level (Pan African Institute for Development -PAID) there is growing interest in the approach. PAID/West Africa has now included action-oriented research in its integrated rural development course.

Source: PLA Notes (1999), Issue 35, pp.21–28, IIED London

BOX 2
TECHNICAL IMPROVEMENTS IN PAKISTAN

The community of Pakora installed pipes between the water source and the storage reservoir, but failed to overcome the problem of freezing in the channel. They repaired the sedimentation tank and storage reservoir, and they are in the process of resolving the problem of freezing and leakages in the pipe crossing the Pakora *nallah* (big stream). The community of Hasis identified the water freezing problem between the new reservoir and the water source, and drew up an agenda to resolve it. They moved the storage reservoir and installed an additional transmission line. The community of Ghaziabad connected their water supply scheme to a new source spring, located above the inhabited area. They developed plans to resolve the problems of the distribution network, and the community in village meetings evaluated the implementation strategy.

The water supply scheme in Hoto had not worked for about nine years. The social and technical diagnosis identified solutions to reinstate it, which would cost US$15,000. The community tried to get financial or material assistance from various organisations, but with no success. So they decided to use the small amount of funds available in the PAR project to construct the water reservoir and use some of the irrigation pipes available in the village to connect the water reservoir with the existing pipe network. In September 1997 the construction of the water reservoir was completed and the work of digging trenches to install the pipes was in progress.

In Pakistan, regular meetings between the CRT and various groups in the community had improved communications and had stimulated new initiatives. In Hasis, Pakistan, a dispute over land and a water source has been resolved. The community acquired land for the construction of a new water tank through a local agreement with the landowner. The community of Ghaziabad in Pakistan contacted other donors for financial and technical assistance to solve the water problem identified in the PAR process. The Nepal team also reported action: one PAR community (Yampa) had started to keep records of important village decisions, and another (Lele) had set up a maintenance fund and is struggling with non-payers.

After some training in book-keeping, the people of Sigomere, Kenya, had questioned the way their accounts were being kept, with the result that the accountant was fired. The Nyakerato community in Kenya visited the Department of Water and Energy to demand an explanation for the delay in implementing a promised water scheme. In Yanthooko, Kenya, the community realised that if they could feed the visiting PAR team members with chicken at a cost of Ksh.20,000, they would also be able to raise money to buy a plot of land for a communal shop in the local town. In Nyen/Mbewi in Cameroon, the visiting members of the National Reference Group asked people how they felt being part of the PAR project. The community answered that they felt more committed to the water scheme; more people attend meetings, and they have decentralised the handling of emergency problems to the local caretaker. Also in Cameroon, the village of Nkoundja, after a meeting with the PAR team, resolved a communication problem between the water committee and the caretaker that had hampered the functioning of the system for more than six months. In the same community, after a PAR session on the causes of their water problems, the executive members of the committee went to the Community Development Service to ask for pipes to repair all the leaks in their water system.

In Colombia, one community has already started to implement solutions to reduce water wastage. In a workshop in which 13 community members evaluated the PAR team inputs, they cited the following outcomes of the process: people listen better, people are more aware of water resources and water losses have been reduced. In Guatemala, community associations have developed measures to protect the catchment area in order to improve the quality of the river water.

Source: PLA Notes (1999), Issue 35, pp.21–28, IIED London

· Sharing the findings

These articles are only one of the many ways in which lessons from this programme are being disseminated. Following the research phase, the Dutch International Development Assistance, DGIS, is financing a dissemination phase. Other dissemination tools on PAD for community water management in the pipeline include:

- manuals;
- six country videos and one global video;
- development of training courses in partner organisations;
- articles and presentations at conferences; and,
- electronic networking.

We hope that practitioners in and outside the water sector will identify with many of these experiences, prompting them to reflect on their own working practices and to discuss the opportunities and limitations of community management among themselves.

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